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ABSTRACT

This paper describes a study of the socioemotional functioning of middle-class male and female preschoolers who had experienced varying degrees of nonparental care during the infant/toddler period. A review of the literature revealed that previous research findings from child care programs were inconclusive about potential differential effects on socioemotional development of participation in groups as a function of the child's sex. Three groups of preschoolers (105 preschoolers) from nine different child care centers participated in the study. Children in Group 1 had continuous, full-time, nonparental care that began prior to 9 months of age. Children in Group 2 had part-time, nonparental care that began prior to 9 months of age, and full-time nonparental care thereafter. Children in Group 3 had no full-time, nonparental care during the first 3 years of life, and had full-time nonparental care after the third year. Children's socioemotional behaviors were rated by teachers, and social interactions with peers and teachers were videotaped and coded. Mothers completed the Waters' Q-Sorts, which provide measures of child dependency and attachment. Results indicate that no differences between boys and girls could be attributed to differential effects of time of entry into child care. Appended are 28 references and a table of related material. (GLR)

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DOES EARLY INFANT/TODDLER NONPARENTAL CARE HAVE DIFFERENTIAL[1] EFFECTS ON SEX ROLE DEVELOPMENT OF PRESCHOOL BOYS AND GIRLS?

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Children are entering child care at ever younger ages in ever-increasing numbers, as more dual career families and single parent families seek child care so that they can retain or return early to employment. Questions of interest in this movement to place younger and younger children in nonparental care have focused for the most part on whether attachment relationships between infant and mother are distorted by full-time infancy care, particularly that undertaken during the first year of life (Belsky & Rovine, 1988). Higher maladjustment, difficulties in peer relations and less compliance have been found for third graders with a history of full-time nonparental care in infancy (Vandell & Corasiniti, 1988).

Although infant childcare environments vary widely in quality (Melhuish, Mooney, Martin, & Lloyd,1990), research questions about the appropriateness of high-quality childcare environments per se in group care are rarely raised at present, since longitudinal data from high-quality programs have confirmed the positive long-term effects on socioemotional functioning, as indexed, for example, by lower juvenile delinquency rates for children from at-risk families (Lally, Mangione, & Honig, 1988). However, high-quality University-based programs often provided part-time rather than full-time infancy care for the first 18 months of life.

Research findings from childcare programs are still inconclusive about potential differential effects on socioemotional development of participation in group care as a function of sex of child, particularly when nonparental full-time care of male and female infants has taken place within the first two years of life.

Differential Treatments of Male and Female Children

Differential treatment of infants as a function of sex of child have been reported frequently by investigators. With infants, a paradigm frequently used has been to dress the infant

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in boy's clothing (blue) or in girl's clothing (pink) and then ask strange adults introduced in play with the infant about the baby's characteristics, or else watch the interaction patterns of adults who presume that the infant is male or female (Will, Self & Datan, 1976). Fagot (1974) observed sex role differences among young toddlers in natural play situations during household activities with parents and siblings. Fagot & Hagan (1985) have also noted differential adult responses to assertive acts of boy and girl toddlers. Oettingen (1985) has reported that the kindergarten teacher tends to draw boys away from their preferred rough and tumble and construction play into more art, an activity preferred more by girls.

Vulnerability to Nonmaternal Care and Sex of Child

Increased stresses for males, compared with females, are reflected in poorer academic achievement test scores reported in several studies for middle class boys whose mothers assumed full time employment during the early years (Gold & Andres, 1978; L.W. Hoffman, 1980). Bronfenbrenner (1986) has suggested that middle-class boys are more vulnerable to the effects of maternal employment than girls. Vandell (1989) confirmed a pattern of relationships with parents, teachers, and peers that was particularly negative for elementary school boys but not for girls, if they had experienced extensive nonmaternal care during their first two years. Crockenberg & Litman (1991) reported that among two-year-olds, boys of employed mothers were more defiant than boys of nonemployed mothers and girls of employed mothers. Analyses of a large data set from the 1986 National Longitudinal Surveys Youth Cohort showed that maternal employment during a child's first year of life had a larger negative impact on cognition of three and four-year-old males compared with females (Blau & Grossberg, 1990). In 1988, Goldberg & Easterbrooks did not find differential attachment of boy toddlers compared with girls when mothers were employed. Fathers of boys rated their sons as expressing more negative emotions the more hours per week that the mother was employed. No such outcomes for girls were found. During toddlerhood, increasing hours of maternal employment and thus, nonparental care, were associated with less overall security for boys. Yet in kindergarten, the most ego resilient children were boys whose mothers were employed and girls whose mothers were not employed. Thus, there are conflicting data about the emotional well-being of males and females experiencing very early full-time nonparental care.

Belsky (1988) has suggested that full-time nonparental care during the first year of life may pose a risk factor for later increased aggression and noncompliance. There is some research support for the idea that early group care may be associated with increased aggression in children (Schwartz, Strickland, & Krolick, 1974). Preschoolers (from low-socioeconomic families) who attended a high quality childcare program full time from

infancy onward, later exhibited far more aggression in kindergarten than controls who had not attended the program (Haskins, 1985). No breakdowns for differences between male and female aggression were noted. Other studies that show no relationship of aggression and assertiveness in kindergarten children with either full-time home or daycare rearing do not always provide separate analyses for boys and girls (Hegland & Rix, 1990).

However, White & Jacobs (1991) did study sex differences in teacher ratings of aggression behaviors by 333 children in urban elementary schools in relation to parental report of current and past childcare arrangements. Lower social class predicted higher aggression ratings for boys only. Childcare variables were not related to aggression ratings in boys. For girls, however, the longer the number of months in childcare, the higher the aggression ratings. The investigators speculate that girls who had attended more group care had more frequent interactions with aggressive behaviors modelled by boys, and they were thus more able to imitate such aggressions. The researchers also suggest that mothers not using childcare facilities may train girl children for more compliance and less aggression. Yet some investigators, such as Wardle (1991) assert that boys can be more negatively affected in childcare because of the preponderance of females as classroom teachers. "Typically, boys engage in more rough-and-tumble play, more aggression during play, and more real fighting; they also make a lot more noise and use more body movements" (p.49). Wardle claims that boys rebel against authority, and by so acting get more adult attention, recognition, and direction. He notes that female early childhood teachers "tend to punish or ignore traditional male behavior" (p. 50).

If there are pronounced sex differences in aggression behaviors in the preschool, certainly caregivers will want to learn effective techniques to increase cooperative play rather than aggressive interactions among males (Honig & Wittmer, 1991; Wittmer & Honig, 1987). However, with rapid increases in the numbers of youngsters beginning childcare at ever-younger ages, a further question of interest becomes whether or not differential amounts of child care in the infant/toddler period are associated with increased or decreased amounts of aggression and noncompliance in males vs. females.

Research Design

Subjects

The present study was designed to examine the socioemotional functioning of middle-class male and female preschoolers who had experienced varying degrees of nonparental care during the infant/toddler period. Both teacher-rated and researcher-observed aggression scores were available for 105 children. The

children ranged in age from 3 1/2 to 5 years, mean age 53 months. The 53 boys and 52 girls attended nine different middle-class child care centers in a medium-sized urban area. Data were analyzed as a function of sex of child and group membership. Group 1 children had continuous full-time (more than 20 hours per week) nonparental care beginning prior to 9 months. Group 2 had part-time nonparental care prior to 9 months and full-time nonparental care thereafter. Group 3 children had no full-time nonparental care during the first three years of life, and full-time nonparental care thereafter.

Procedures

In each classroom, head teachers who had known each child for an average of 12 months but who were blind to the infant care status of the children and to the purposes of the research, rated every child's socioemotional behaviors by means of the Preschool Behavior Questionnaire (PBQ) and the Preschool Behavior Rating instrument (PBR). The PBQ (Behar & Stringfield, 1974) contains 30 items specifying behaviors reflecting internalized stresses (such as nailbiting or stuttering) as well as externalized acting-out aggressions, such as kicks/hits/bites or acts destructive with others' toys. Three factors have been extracted from the scale: 1) hostile-aggressive, 2) anxious-fearful, and 3) hyperactive-distractible. The PBR (Schwartz, Strickland, & Krolick, 1974) permits teacher ratings on a 5-point Likert-type scale. The three PBR factors extracted are: A) social compatibility, B) social assertiveness, and C) intellectual competency.

The preschoolers' social interactions with peers and with teachers were also videotaped over four days for five minutes per day during unstructured indoor free-play. Sixteen categories of positive and agonistic social interactions were coded from the videotapes, with intercoder reliability of r= .85. The Waters' Q Sorts, completed by the mothers, provided measures of child dependency and attachment.

Results and Discussion

Results revealing group differences in externalizing aggression as a function of full-time infancy care begun during the first 24 months of life have been reported elsewhere (Park & Honig, 1991a ; 1991b). Children in groups 1 and 2 combined, who had begun full-time nonparental care prior to 24 months, were rated as significantly higher on the hostile-aggressive factor from the PBQ scale compared with children who had no full-time nonparental care prior to 36 months. Their teachers rated them higher on items such as: fights, lies, is destructive, disobedient, blames others, kicks/ hits, and is unhappy. Children who had begun full-time care prior to nine months were rated as higher on abstract ability and problem solving than

children with no full-time nonparental care prior to age 3.

No significant multivariate effect of group was found for observed positive social behavior. But observed instrumental, physical and verbal aggression, as well as rejection/exclusion were significantly higher for children who had begun full-time nonparental care in the infant/toddler years. Noncompliance was significantly higher for children who had begun full-time care during the first year of life compared with children (group 2 and 3 combined) who did not begin such care until after the first year of life. This paper will focus on sex differences in socioemotional functioning and on the question of whether or not age of entry into full-time group care was associated with any differences in socioemotional functioning of boys and girls.

Boys were rated by their teachers as significantly higher on the PBQ hostile-aggressive factor compared with girls (See Table 1). Significant differences were found for: restless, squirmy, irritable, destructive, fights, disobedient, bullies, does not share, inconsiderate, and kicks/hits/bites.

Insert Table 1 about here

No sex differences were observed for teacher ratings of anxious-fearfulness, hyperactive-distractibility, social assertiveness, social compatibility, or intellectual competency.

Boys were observed to be more aggressive toward peers during indoor free-play sessions. They were three times more physically aggressive to peers compared with girls. The girls engaged in positive physical contact with their teacher more than boys, who rarely had any positive physical contact with teachers. Girls were also observed to ask for more instrumental help than boys. Observations did not reveal any differences between boys and girls in frequency of positive peer interactions, in compliance and noncompliance to teacher, or in manifestations of emotional distress during free play. However, boys and girls were observed to engage in different types of play patterns. Boys were more likely to be engaged in associative/cooperative play, whereas girls were more likely to engage in parallel play.

No sex by group interaction effects for socioemotional functioning were found in this study. That is, there were no differences between boys and girls that could be attributed to differential effects of time of entry into childcare for boys compared with girls. The MANOVA F values for PBQ Factors 1, 2, and 3 respectively for the sex x group interactions, were 0.18, 0.56 and 1.45, all of them nonsignificant. The F values for the three PBR factors, respectively, for sex x group interactions, were 0.91, 0.67, and 0.02. All of these were nonsignificant.

Thus, there were no differential effects, either harmful or facilitating, of entry into full-time nonparental care either in early infancy, later infancy, or preschool that were associated with being either a male or a female in this middle-class, mostly two-parent sample.

Whether differential effects of full-time infancy care exist with respect to the socioemotional development of male and female children from at-risk or low-socioeconomic families remains a question for further research. However, considering the extensive research literature reflecting vulnerability of males in early nonparental care to later difficulties with school achievement (Moore, 1975) and lower intelligence test scores (Hoffman, 1979) even in middle-class samples, the present data are encouraging.

Conclusions

Ratings of emotional responsiveness of male and female preschoolers revealed significantly more aggression both observed and also reported by teachers for those children who had entered nonparental care full-time during the early infant/toddler period. However, no interaction effects of group care entry status and sex of child were found. Thus, in this sample of middle-class children from predominantly two-parent families, boys did not show more vulnerability to early entry into childcare as might have been expected from studies detailing the increased vulnerability of boy infants to inadequate maternal care and to changes and variability in nonmaternal care. When males exhibit differentially more aggression and noncompliance, as has been reported when nonparental full-time care is begun early in infancy (Crockenberg & Litman, 1991), this may be due to other factors, such as unstable caregiving arrangements, or stress that interferes with adequate maternal intimate responsiveness to male infants and toddlers.

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Table 1

PBQ Socioemotional Scores for Preschool Boys and Girls

	boys(n=63)		girls(n=62)		F
	M	SD	M	SD	
1. Restless	.89	.75	.50	.67	8.50**
2. Squirmy	.70	.70	.42	.67	5.36*
3. Destructive	.38	.53	.12	.32	11.44**
4. Fights	.70	.58	.19	.40	19.16**
5. Disliked	.08	.27	.06	.24	-
6. Worries	.42	.57	.60	.69	-
7. Solitary	.43	.57	.54	.67	-
8. Irritable	.38	.56	.15	.41	5.04*
9. Unhappy	.25	.48	.21	.41	-
10. Twitches	.04	.27	.08	.39	-
11. Bite nails	.00	.00	.08	.33	-
12. Disobedient	.45	.61	.21	.46	6.62*
13. Poor concentration	.36	.52	.37	.63	-
14. Fearful	.53	.67	.69	.58	-
15. Fussy	.32	.58	.40	.90	-
16. Lies	.11	.32	.12	.32	-
17. Soils itself	.26	.52	.19	.49	-
18. Stutters	.08	.27	.06	.24	-
19. Other speech difficulty	.17	.43	.12	.43	-
20. Bullies	.45	.57	.12	.38	12.99**
21. Inattentive	.45	.61	.36	.53	-
22. Does not share	.57	.57	.27	.45	9.94**
23. Cries easily	.40	.60	.27	.56	-
24. Blames others	.38	.58	.33	.55	-
25. Gives up easily	.30	.54	.33	.56	-
26. Inconsiderate	.49	.50	.23	.43	8.23**
27. Sexual problem	.04	.27	.04	.19	-
28. Kicks, hits	.42	.53	.12	.38	14.03**
29. Stares into space	.11	.37	.19	.49	-
30. Behavior problems	.21	.49	.10	.36	-
Total	10.30	7.44	7.44	8.33	8.07*

* $p < .05$ ** $p < .01$

Note: Grand total PBQ mean across sexes: M = 8.9(SD = 7.0)

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